

**Amendments to the Specification:**

On page 4, please replace the paragraphs under the heading "Short description of the drawings" with the following amended paragraphs.

~~Figure 1 shows~~ Figures 1a and 1b show the nucleotide sequence SEQ ID NO:1 of the *thy A* gene of *Vibrio cholerae*.

Figure 2 shows the nucleotide sequence SEQ ID NO:2 of the 5'-flanking region of the structural *thy A* gene of *Vibrio cholerae*.

Figure 3 shows the nucleotide sequence SEQ ID NO:3 of the 3'-flanking region of the structural *thy A* gene of *Vibrio cholerae*.

Figure 4 shows the amino-acid sequence SEQ ID NO:4 of the protein encoded by the structural *thy A* gene of *Vibrio cholerae*.

Figure 5 shows the amino-acid sequence SEQ ID NO:5 of the protein encoded by the 5'-flanking region of the structural *thy A* gene of *Vibrio cholerae*.

Figure 6 shows the cloning of a *EcoRI/HindIII* fragment containing the *V.cholerae thyA* gene in pUC19.

Figure 7 shows a comparison of *thyA* gene products from *E. coli* [16], *V. cholerae* and *H. influenzae* [17] showing the high degree of homology between *V. cholerae* and *H. influenzae* compared with *E. coli*.

Figure 8 shows the insertion of a Kan<sup>R</sup>-resistance gene block in the *PstI* site of the *V.cholerae thyA* gene in pUC19.

Figure 9 shows PCR to generate a *thyA* -Kan fragment with *XbaI* ends.

Figure 10 shows ligation of the *thyA*-Kan fragment with *XbaI* ends in plasmid pNQ705.

Figure 11 shows partial deletion of the *thyA* gene and the start of the Kan gene in pNEB193.

Figure 12 shows *XbaI* cleavage to excise the  $\Delta thyA \Delta kan$  gene from pNEB193, ligation into *XbaI* restricted pDM4.

Appl. No. 09/700,712  
Amendment dated: January 24, 2005  
Reply to OA of: September 23, 2004

Figure 13 shows an outline of a strategy to completely delete the *thyA* gene of *V. cholerae*.

Figure 14 shows insertion of the 5' region upstream of *thyA* in pMT-SUICIDE 1; generation of pMT with 5 prim.

Figure 15 shows insertion of the 3' region downstream of *thyA* in pMT with 5 prim; generation of pMT  $\Delta thyA$  *V.cholerae*.

Figure 16 shows the expression vector pMT-eltB(*thyA*) used for expression of LTB in *V. cholerae* JS1569  $\Delta thyA$ .

Figure 17 shows the expression vector pMT-GST(*thyA*) used for expression of GST in *V. cholerae* JS1569  $\Delta thyA$ .